

PROCESS FOR THE TWO-STEP PRODUCTION OF DINITROTOLUENE

ABSTRACT OF THE DISCLOSURE

The invention relates to a process for the production of dinitrotoluene by the two-stage nitration of toluene. This process consists of

- a) a first stage wherein toluene is reacted adiabatically with nitrating acid such that at least 90% of the toluene is reacted off and no more than 70% of the toluene used reacts to form dinitrotoluene, the organic phase containing mononitrotoluene and the aqueous acid phase containing sulfuric acid are then separated, the aqueous acid phase containing sulfuric acid is concentrated by flash evaporation, and the resulting concentrated sulfuric acid is recycled into the reaction in the first stage and/or into the reaction in the second stage and/or into the concentration in the second stage,

and

- b) a second stage wherein the organic phase containing mononitrotoluene from the first stage is completely reacted isothermally with nitrating acid, the organic phase and the aqueous acid phase containing sulfuric acid are then separated, and the aqueous acid phase containing sulfuric acid is concentrated by vacuum evaporation, and the resulting concentrated sulfuric acid is recycled into the reaction in the first stage and/or the second stage.